Wacky Wiggler™

www.estesrockets.com

Estes® Industries
1295 H Street
Penrose, CO 81240

PRINTED IN CHINA

FLYING MODEL ROCKET KIT INSTRUCTIONS **EST 2182**

KEEP FOR FUTURE REFERENCE

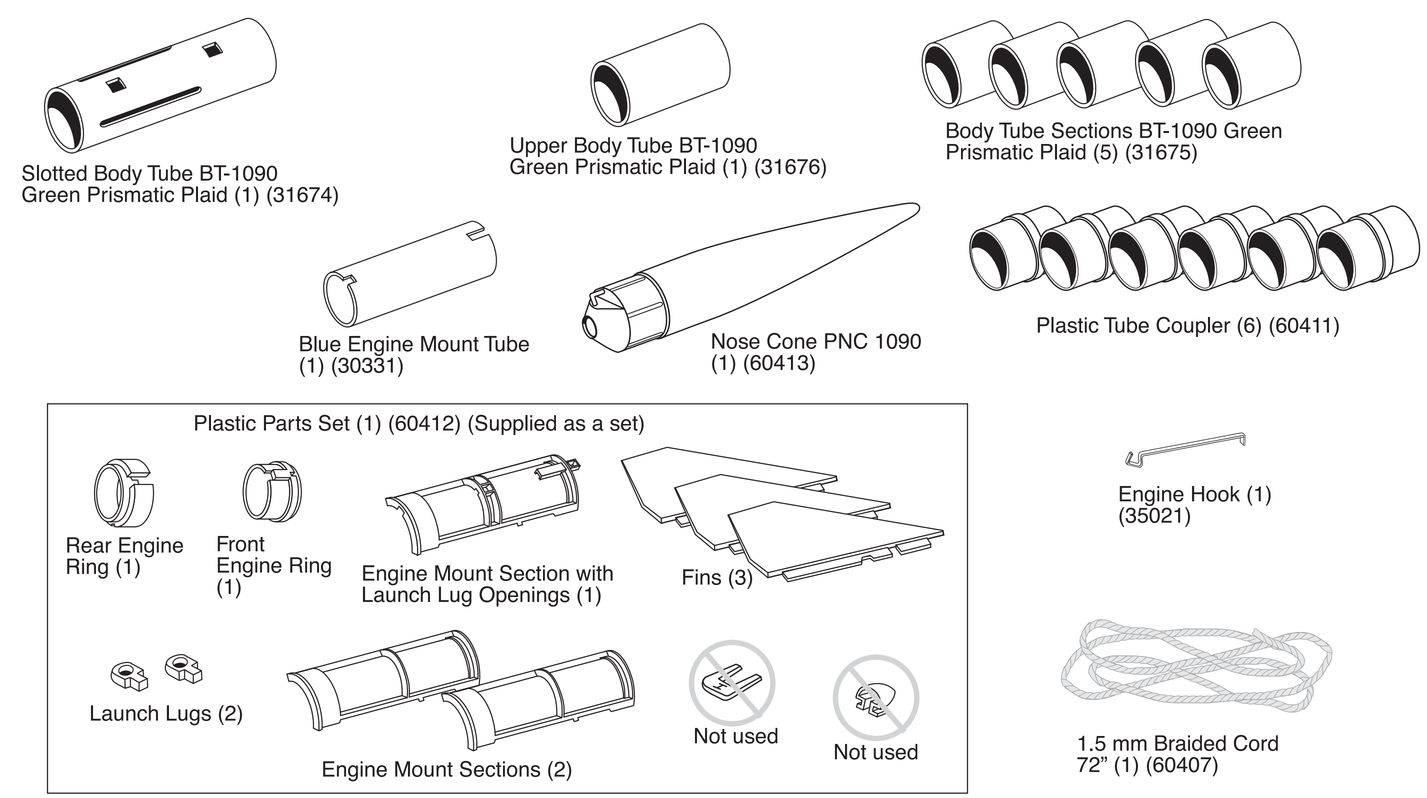


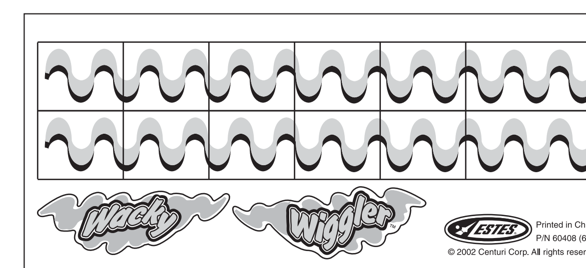
ASSEMBLY TIP

Read all instructions before beginning work on your model. Make sure you have all parts and supplies. **TEST-FIT ALL PARTS TOGETHER BEFORE APPLYING ANY GLUE.** If any parts don't fit properly, sand as required for precision assembly.

PARTS

Locate the parts shown below and lay them out on the table in front of you.
DO NOT USE THIS DRAWING TO ASSEMBLE YOUR ROCKET.





Decal Sheet (1) (60408)

SUPPLIES

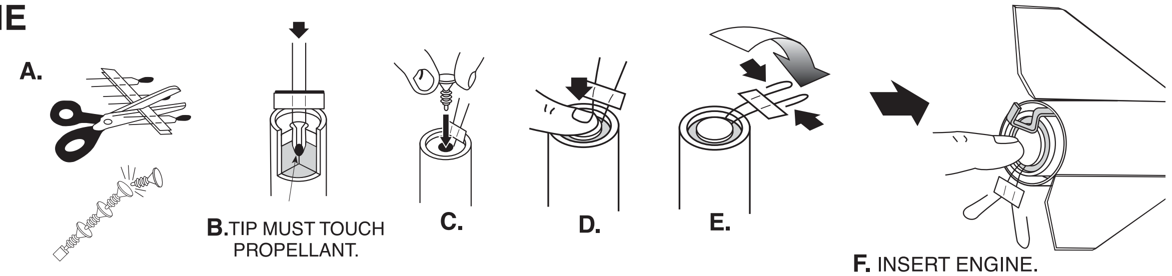
In addition to the parts included in the kit you will also need:



PREPARE ENGINE

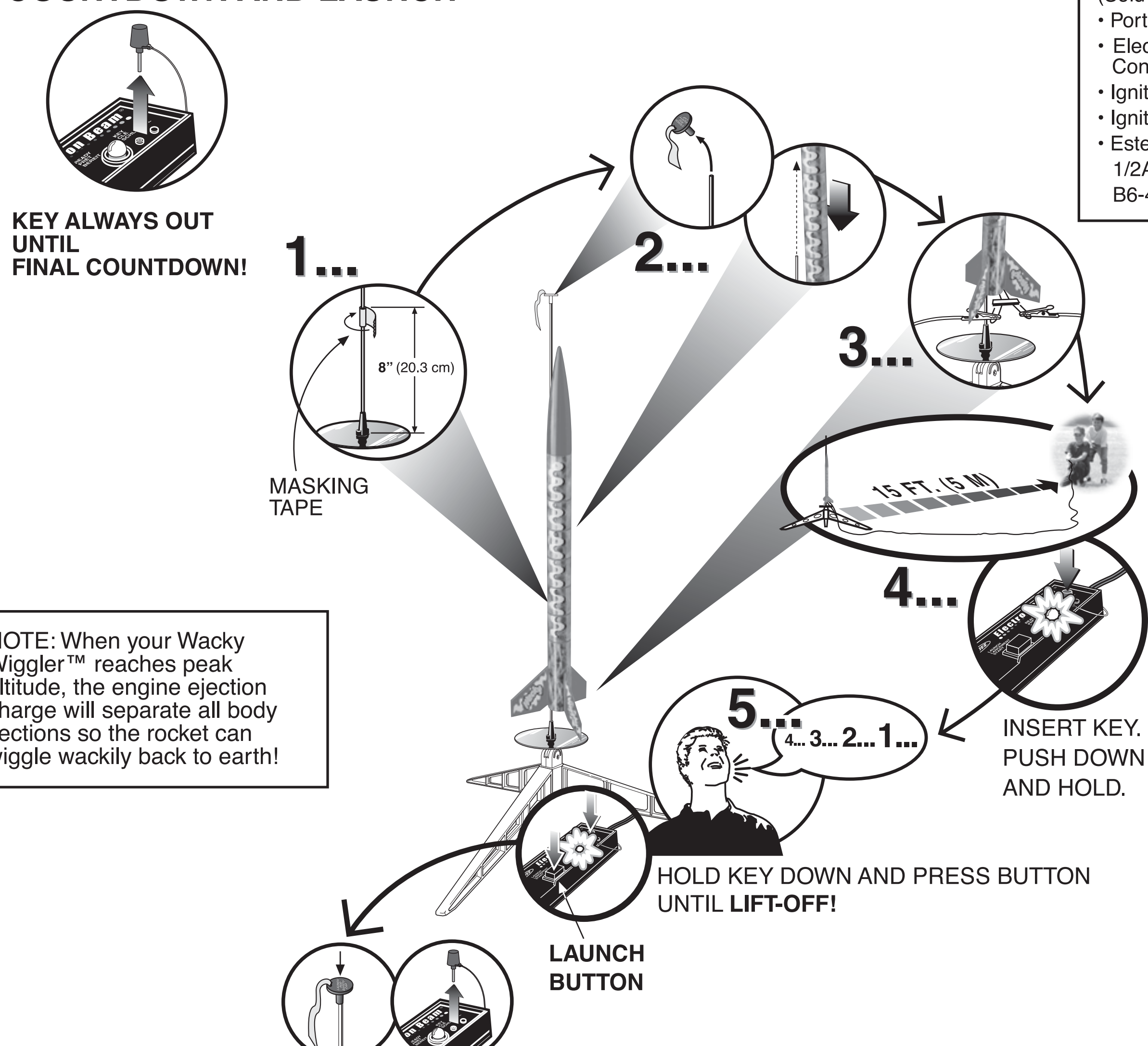
⚠ WARNING: FLAMMABLE

To avoid serious injury, read instructions & NAR Safety Code included with engines. **PREPARE YOUR ENGINE ONLY WHEN YOU ARE OUTSIDE AT THE LAUNCH SITE PREPARING TO LAUNCH!** If you do not use your prepared engine, remove the igniter before storing your engine.



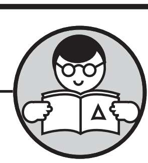
COUNTDOWN AND LAUNCH

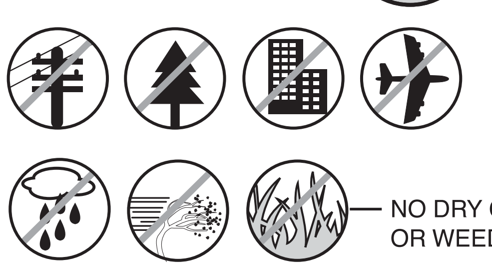
LAUNCH SUPPLIES
(Sold Separately)
- Porta Pad® II Launch Pad
- Electron Beam® Launch Controller
- Igniters (with Engines)
- Igniter Plugs (with Engines)
- Estes® Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, C6-3, C6-5



NOTE: When your Wacky Wiggler™ reaches peak altitude, the engine ejection charge will separate all body sections so the rocket can wiggle wackily back to earth!

PRECAUTIONS


NAR Safety Code


NO DRY GRASS OR WEEDS

FLYING YOUR ROCKET

Choose a large field (500 ft. [152 m] square) free of dry weeds and brown grass. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great. Launch only with little or no wind and good visibility.

Always follow the National Association of Rocketry **(NAR) SAFETY CODE.**

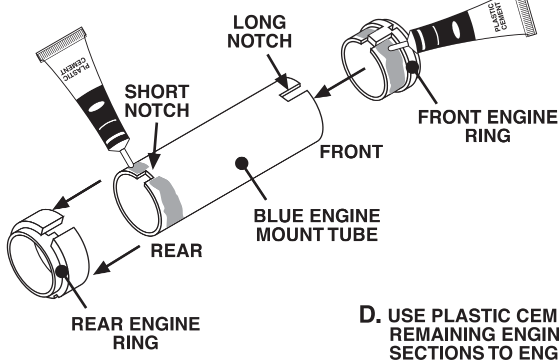
MISFIRES

TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET! Disconnect the igniter clips and remove the engine. Take the plug and igniter out of the engine. If the igniter has burned, it worked but did not ignite the engine because it was not touching the propellant inside the engine. Put a new igniter all the way inside the engine without bending it. Push the plug in place. Repeat the steps under Countdown and Launch.

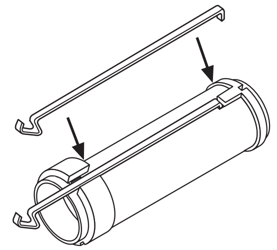
(06/02) P/N 60409

1. ASSEMBLE ENGINE MOUNT

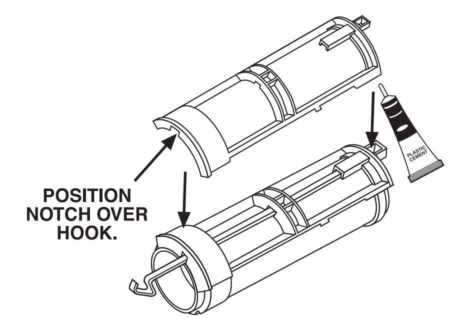
A. USE PLASTIC CEMENT TO GLUE FRONT ENGINE RING AND REAR ENGINE RING TO ENGINE MOUNT TUBE.



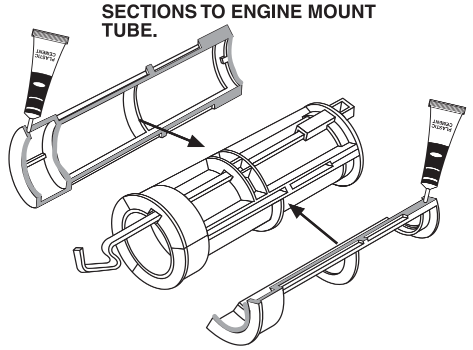
B. POSITION HOOK.



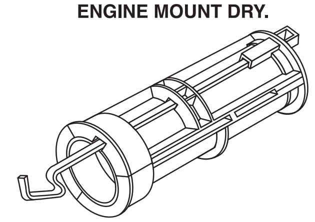
C. USE PLASTIC CEMENT TO GLUE ENGINE MOUNT SECTION WITH LAUNCH LUG HOLES TO ENGINE MOUNT TUBE.



D. USE PLASTIC CEMENT TO GLUE REMAINING ENGINE MOUNT SECTIONS TO ENGINE MOUNT TUBE.

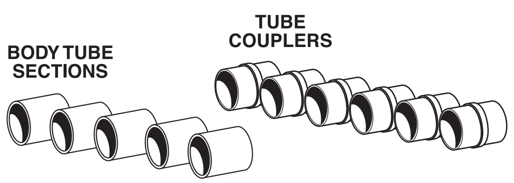


E. LET FINISHED ENGINE MOUNT DRY.

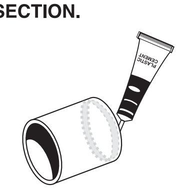


2. ATTACH BODY TUBE SECTIONS TO COUPLERS

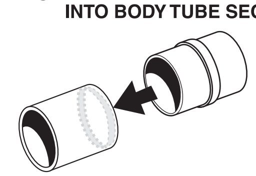
A. LOCATE THE FIVE BODY TUBE SECTIONS AND FIVE OF THE TUBE COUPLERS.



B. APPLY PLASTIC CEMENT INSIDE ONE BODY TUBE SECTION.

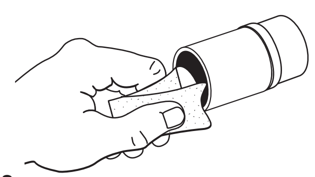


C. INSERT TUBE COUPLER INTO BODY TUBE SECTION.



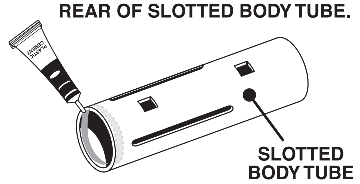
D. REPEAT STEPS B&C FOR REMAINING FOUR SECTIONS AND COUPLERS.

E. SAND INSIDE LIP OF EACH BODY TUBE SECTION.

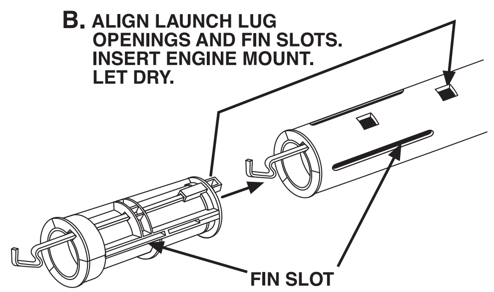


3. INSTALL ENGINE MOUNT, LAUNCH LUGS & FINS.

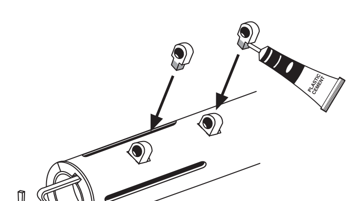
A. SPREAD PLASTIC CEMENT INSIDE REAR OF SLOTTED BODY TUBE.



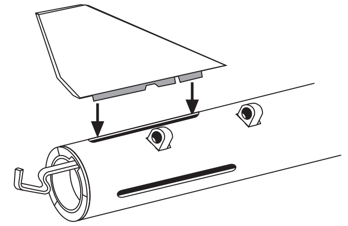
B. ALIGN LAUNCH LUG OPENINGS AND FIN SLOTS. INSERT ENGINE MOUNT. LET DRY.



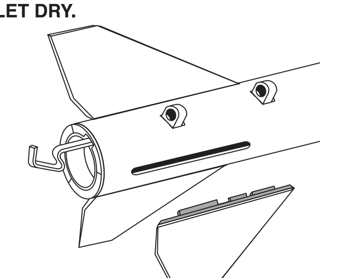
C. APPLY PLASTIC CEMENT TO LAUNCH LUGS. INSERT LAUNCH LUGS INTO OPENINGS AS SHOWN. LET DRY.

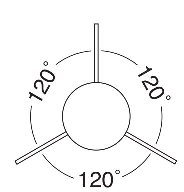


D. APPLY PLASTIC CEMENT TO TAB ON FIN AND INSERT FIN INTO FIN SLOT.



E. REPEAT FOR REMAINING FINS. LET DRY.

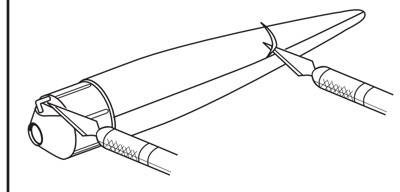




NOTE: FINS MUST BE ATTACHED CORRECTLY FOR STABLE FLIGHT.

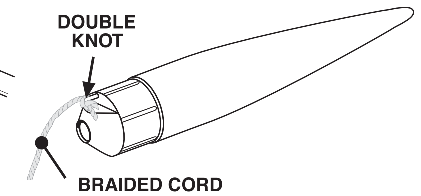
4. ASSEMBLE NOSE CONE SECTION

A. REMOVE EXCESS FLASH FROM NOSE CONE AND EYELET.

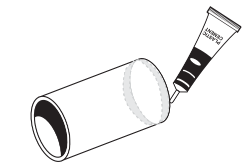


CAUTION: DO NOT CUT OFF EYELET.

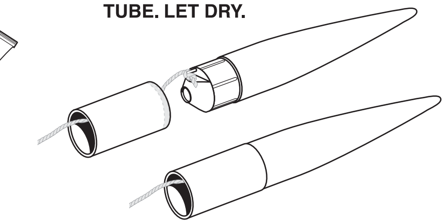
B. TIE BRAIDED CORD TO NOSE CONE.



C. APPLY PLASTIC CEMENT INSIDE UPPER BODY TUBE.



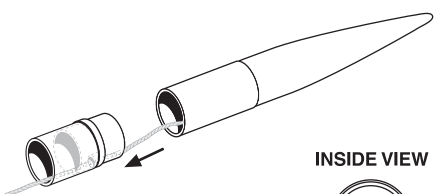
D. PASS BRAIDED CORD THROUGH UPPER BODY TUBE AND INSERT NOSE CONE INTO UPPER BODY TUBE. LET DRY.

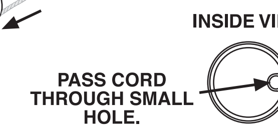


FINISHED ASSEMBLY

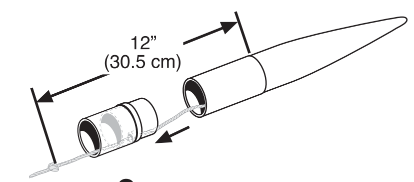
5. ATTACH BODY SECTIONS

A. PASS BRAIDED CORD THROUGH SMALL HOLE IN ONE COUPLER/BODY TUBE SECTION AS SHOWN.



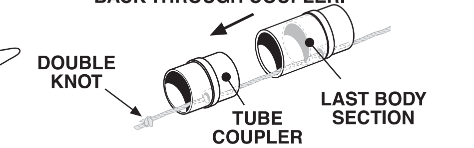


B. TIE A KNOT IN CORD AS SHOWN.

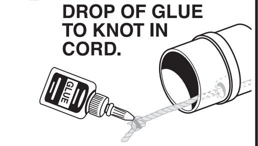


C. REPEAT STEPS A&B FOR THE 4 REMAINING COUPLER/BODY TUBE SECTIONS. KEEP KNOTS IN CORD SPACED AT 12" (30.5 cm) APART.

D. PASS BRAIDED CORD THROUGH REMAINING TUBE COUPLER. DOUBLE KNOT CORD. BE SURE CORD CANNOT BE PULLED BACK THROUGH COUPLER.

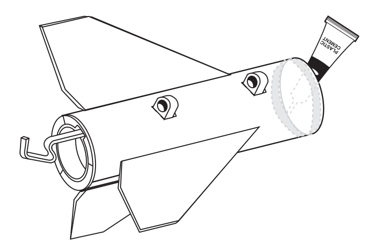


D. APPLY SMALL DROP OF GLUE TO KNOT IN CORD.

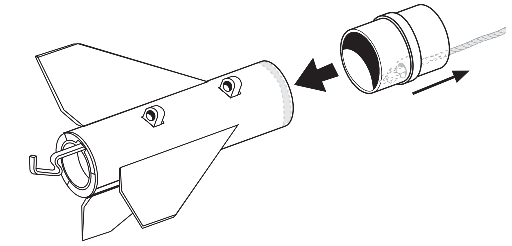


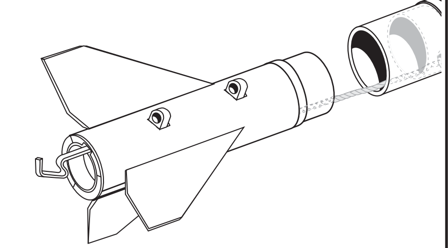
6. ATTACH LOWER BODY TUBE

A. APPLY PLASTIC CEMENT INSIDE FRONT OF LOWER BODY TUBE.

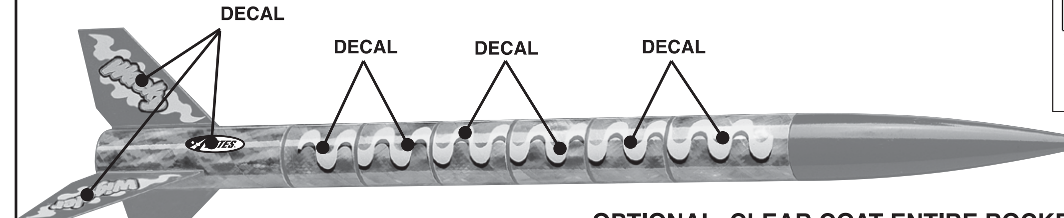


B. PULL BRAIDED CORD AGAINST HOLE IN COUPLER AND INSERT COUPLER INTO BODY TUBE. LET DRY.

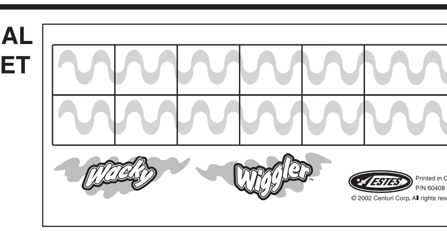




DECAL APPLICATION



DECAL SHEET



OPTIONAL: CLEAR COAT ENTIRE ROCKET AFTER DECAL APPLICATION.

ROCKET PREFLIGHT

A. PUSH BRAIDED CORD INTO BODY SECTIONS AND CONNECT BODY SECTIONS.



READY TO LAUNCH!